



Australian Government

MEA306 Remove and install engines and engine system components

Release: 2

MEA306 Remove and install engines and engine system components

Modification History

Release 2. Equivalent to MEA306 Remove and install engines and engine system components with amended prerequisite codes.

Application

This unit of competency requires application of hand skills and the use of maintenance publications to remove and install gas turbine or piston engines and engine system components of fixed and rotary wing aircraft during scheduled and unscheduled maintenance.

Work may be performed individually or as part of a team.

The unit is part of the Mechanical Certificate IV (Aircraft Maintenance Stream) training pathway.

The unit is used in workplaces that operate under the airworthiness regulatory systems of the Australian Defence Force (ADF) and the Civil Aviation safety Authority (CASA).

Where a CASA licensing outcome is sought this unit forms part of the CASA requirement for the granting of the chosen maintenance certification licence under Civil Aviation Safety Regulation (CASR) Part 66, in accordance with the licensing provisions in the Companion Volume Implementation Guide.

Pre-requisite Unit

MEA107	Interpret and use aviation maintenance industry manuals and specifications
MEA154	Apply work health and safety practices in aviation maintenance
MEA155	Plan and organise aviation maintenance work activities
MEA156	Apply quality standards during aviation maintenance activities
MEA157	Complete aviation maintenance industry documentation
MEA158	Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance

Competency Field

Aviation maintenance

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

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|------------------------------------|--|
| 1. Remove engine | 1.1 Aircraft is prepared and supported and rendered safe in accordance with the applicable maintenance manual and isolation tags are fitted, where necessary, to ensure the safety of personnel and freedom from damage during engine removal |
| | 1.2 Removal is carried out in accordance with the applicable maintenance manual while observing all relevant work health and safety (WHS) requirements, including the use of material safety data sheets (MSDS) and items of personal protective equipment (PPE) |
| | 1.3 Engine is tagged and prepared for transport or storage in accordance with the specified procedures |
| | 1.4 Required maintenance documentation is completed and processed in accordance with standard enterprise procedures |
| 2. Remove engine system components | 2.1 Aircraft and/or engine system is prepared and rendered safe in accordance with the applicable maintenance manual and isolation tags are fitted, where necessary, to ensure the safety of personnel |
| | 2.2 Removal is carried out in accordance with the applicable maintenance manual while observing all relevant WHS requirements, including the use of MSDS and items of PPE |
| | 2.3 Engine system component is tagged and prepared for transport or storage in accordance with the specified procedures |
| | 2.4 Required maintenance documentation is completed and processed in accordance with standard enterprise procedures |
| 3. Install engine | 3.1 Engine to be installed is checked to confirm correct part or model numbers, modification status and serviceability |
| | 3.2 Installation is carried out in accordance with the applicable maintenance manual |

- 3.3 Support/safety equipment is removed at the appropriate time to ensure personnel safety and freedom from structural damage
 - 3.4 Required maintenance documentation is completed and processed in accordance with standard enterprise procedures
 4. Install engine system components
 - 4.1 Engine components to be installed are checked to confirm correct part or model numbers, modification status and serviceability
 - 4.2 Installation is carried out in accordance with the applicable maintenance manual while observing all relevant WHS requirements, including the use of MSDS and items of PPE
 - 4.3 Support/safety equipment is removed at the appropriate time to ensure personnel safety and freedom from structural damage
 - 4.4 Required maintenance documentation is completed and processed in accordance with standard enterprise procedures

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Engines and engine system components include:

- Engine change unit or auxiliary power unit (turbo-prop, turbofan, turboshaft, turbojet and piston)
- Fuel, oil and air system (or induction and super/turbo charger systems in the case of piston engine) components
- Engine control system components
- Ignition or igniter system components
- Starting system components
- Fire protection system components.

Procedures and requirements include:

- Accessories and associated drives
- Industry standard procedures specified by manufacturers, regulatory authorities or the enterprise

Unit Mapping Information

Release 2. Equivalent to MEA306 Remove and install engines and engine system components

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ce216c9c-04d5-4b3b-9bcf-4e81d0950371>